

What is claimed is:

1 1. An apparatus for authenticating the identity of a person, comprising a
2 wrist-worn display for providing information to a wearer of the apparatus; an
3 image sensor for obtaining an image of the wearer when the wearer views the
4 display; and a memory for storing a baseline profile of the wearer, the baseline
5 profile being based upon the image, wherein the image sensor repeatedly
6 obtains additional images for comparison to the baseline profile.

1 2. The apparatus according to claim 1, wherein the apparatus develops a
2 response when comparison of the additional images to the baseline profile
3 indicates that identity of the wearer cannot be confirmed.

1 3. The apparatus according to claim 2, wherein the response disallows a
2 transaction attempted by the wearer.

1 4. The apparatus according to claim 3, further comprising a general
2 purpose processor for making the comparison of the additional images to the
3 baseline profile.

1 5. The apparatus according to claim 3, further comprising a transceiver
2 for communicating the additional images to an external computer system.

1 6. The apparatus according to claim 5, wherein the external computer
2 system performs a superresolution technique on the additional images.

1 7. The apparatus according to claim 5, wherein the external computer
2 system performs an image recognition technique on the additional images.

1 8. A method for authenticating the identity of a person comprising:
2 obtaining baseline samples of biometric data from the person;
3 forming a baseline profile from the biometric data;
4 repeatedly obtaining additional biometric data from the person in
5 response to the person accessing a portable device for information;

6 comparing the additional data to the baseline profile for authenticating
7 identity of the person; and
8 developing a response to said comparing.

1 9. The method according to claim 8, wherein said information comprises
2 time of day.

1 10. The method according to claim 9, wherein said portable device is
2 wrist-worn.

1 11. The method according to claim 8, wherein said obtaining baseline
2 samples comprises obtaining an image of the person's face.

1 12. The method according to claim 11, wherein said obtaining baseline
2 samples comprises obtaining an image of the person's iris.

1 13. The method according to claim 8, wherein said obtaining baseline
2 samples comprising obtaining a fingerprint image of the person.

1 14. The method according to claim 8, further comprising performing a
2 superresolution algorithm on the baseline samples.

1 15. The method according to claim 14, further comprising communicating
2 the baseline samples from the portable device to an external computer system,
3 wherein said performing the superresolution algorithm is performed in the
4 external computer system.

1 16. The method according to claim 15, wherein the external computer
2 system performs said comparing the additional data to the baseline samples.

1 17. The method according to claim 15, further comprising upgrading a
2 superresolution algorithm stored in the external computer.

1 18. The method according to claim 8, said comparing being by the portable
2 device.

1 19. The method according to claim 8, said comparing being a computer
2 system that is external to the portable device.

1 20. The method according to claim 19, wherein the external computer
2 system includes mass storage for storing the additional biometric data.

1 21. The method according to claim 8, wherein the response disallows a
2 transaction attempted by the wearer.

1 22. The method according to claim 21, said comparing comprising:
2 forming a level of confidence that the identity of the person is correct;
3 and
4 comparing the level of confidence to predetermined minimum
5 threshold level.

1 23. The method according to claim 22, said predetermined minimum
2 threshold being for a particular transaction attempted by the person.

1 24. The method according to claim 21, further comprising sensing that the
2 device is not being worn by the person and developing the response when the
3 device is not being worn by the person.

1 25. The method according to claim 24, said sensing that the device is not
2 being worn by the person comprising sensing a body temperature of the
3 person.

1 26. The method according to claim 25, said sensing that the device is not
2 being worn by the person comprising sensing a bio-noise of the person.

1 27. The method according to claim 8, further comprising:
2 sensing environmental information; and

3 including the environmental information in the baseline profile.

1 28. The method according to claim 27, wherein said environmental
2 information comprises geographic location.

1 29. The method according to claim 8, further comprising updating the
2 baseline sample by the additional biometric data when the additional biometric
3 data successfully authenticates the identity of the person.

1 30. A method for authenticating the identity of a person comprising:
2 obtaining baseline samples of biometric data from the person over a
3 period of at least one day;
4 forming a baseline profile from the biometric data;
5 repeatedly obtaining additional biometric data from the person;
6 comparing the additional data to the baseline profile for authenticating
7 identity of the person; and
8 developing a response to said comparing.

1 31. The method according to claim 30, further comprising freezing the
2 baseline profile after said obtaining baseline samples.

1 32. The method according to claim 30, further comprising updating the
2 baseline sample by the additional biometric data when the additional biometric
3 data successfully authenticates the identity of the person.

1 33. The method according to claim 30, wherein the response disallows a
2 transaction attempted by the wearer.

1 34. The method according to claim 30, wherein the baseline samples are
2 collected while the person goes about his or her normal activities.

1 35. The method according to claim 30, wherein said obtaining baseline
2 samples comprises obtaining an image of the person's face.

1 36. The method according to claim 35, wherein said obtaining baseline
2 samples comprises obtaining an image of the person's iris.

1 37. The method according to claim 30, wherein the baseline samples
2 include voice samples of the person.

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